BIS - Access Engine (ACE) 4.1

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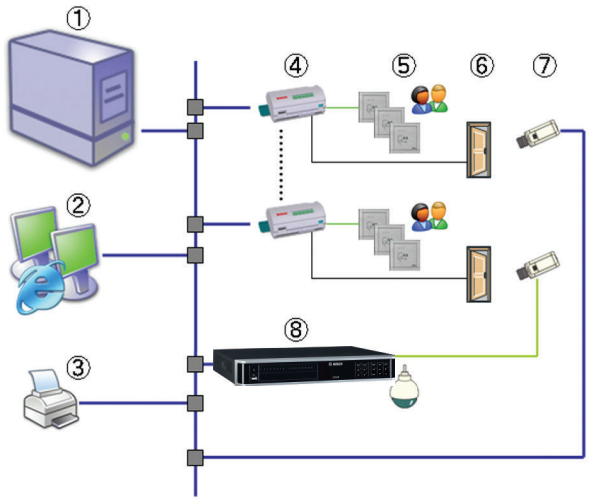
BOSCH
Invented for life

- Sophisticated access control with direct alarm management
- Seamless integration and interaction with video, fire, intrusion and PA/VA systems via the common BIS platform
- Installer-friendly configuration through the use of door model template definitions and the import of existing cardholder data
- Advanced visitor and parking-lot management
- Integration of third-party products via open protocols and SDK

Access control has become one of today's most important technologies for increasing the security of people, property, and assets. The BIS Access Engine and sophisticated controller products provide a wide range of access control features.
Combine the basic Access Engine package with optional features to build a customized access control system that meets your needs. Then use the Building Integration System software to integrate the Access Engine with your intrusion and video security equipment.

System overview

The Access Engine (ACE) software, in conjunction with Bosch access hardware, is a complete access control system within the Building Integration System (BIS). It encompasses all the essential features of any standalone access control system, plus a wide range of optional enhancements.
Like the other BIS engines, the ACE takes full advantage of all the extra BIS features, such as interactive location maps and action plans for powerful, fully integrated alarm management. Alarm messages and access control events can be displayed with graphical location information and workflow instructions.
ACE uses the standard BIS user interfaces and their flexibility of customization. Additionally ACE offers specific access configuration interfaces for cardholders, access hardware and access rules.
The main benefit of the Building Integration System family is the integration of a wide variety of security systems on the same premises. By combining ACE with other BIS engines (e.g. Automation and Video) you can design smart security solutions tailored to meet your bid specification requirements.
The Access Engine runs on a single-workstation computer or within a client-server system with a central server and remote workstations.



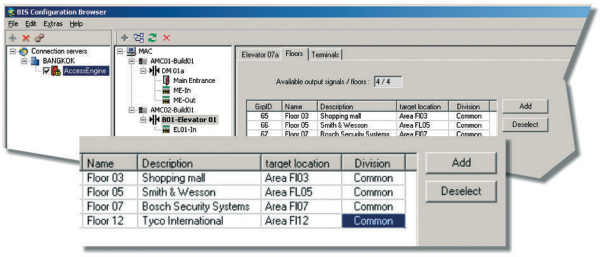
Pos.	Description
1	Central BIS server with Access Engine and Video Engine SW
2	Workstations
3	Printer
4	Access controllers
5	Readers
6	Door strikes
7	IP camera
8	Digital Video Recorder e.g. DIVAR IP 3000

Functions

The Access Engine basic package, in combination with AMC access controllers, offers the following features:

- A wide range of intuitive, template door models allowing fast and easy hardware configuration (e.g. standard door, turnstile, elevator with entrance / exit reader etc.).
- Door model configuration dialog generates a wiring plan for the hardware installer
- On-the-fly activation of reader and cardholder configurations in the access controllers
- Time models for time-based access control, including the definition of special days, recurring public holidays, etc.
- Time models for automatic activation/deactivation of cardholder accounts, such as access rules, PIN codes etc.
- Time models for automatic activation/deactivation of system settings, such as setting a door to be unlocked from 9 a.m. to 5 p.m.
- Additional PIN code for arming /disarming intruder alarms
- Temporary blocking / unblocking of cardholders, either manually or time-controlled
- Blacklisting of cards
- User-definable input fields for supplementary cardholder information
- Anti-passback
- Access area balancing including access sequence checking provides a means of limiting the number of people in a given area, automatic arming/disarming if area is empty/not empty and muster list generation.
- N-Persons authorization will grant access at a door only when a defined number (N) of authorized cardholders present their badges to a correspondingly configured reader. The setting can be made reader by reader, and from 2 to N (no limit) persons.
- Mantrap feature for managing two cooperating doors with two pairs of readers; used for high security levels, e.g. entrance to computer center or research department
- Guard tour: a state-of-the-art patrol tracking system using existing access control readers, access-sequence and access-time checking. Any violation of patrol sequence or timing causes an alarm, which is then tracked by BIS's sophisticated alarm management features. Guard tour reports can be generated from the BIS event log.

- Random screening feature: Cardholders accessing or leaving the site can be stopped at random intervals and directed to security personnel for closer inspection. Cards belonging to designated "VIPs" can be excluded from random screening.
- Visitor management: Visitors' cards can be tracked and handled separately as regards their validity periods and the possible need for an escort.
- Interface for arming/disarming an IDS (Intrusion Detection System) including authorization handling and card assignment

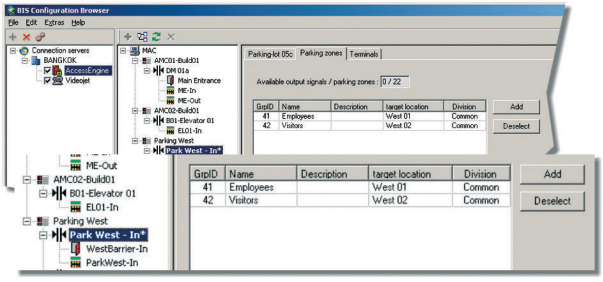


- Elevator interface for controlling up to 56 floors via an elevator-internal card reader, and for the assignment of floor authorizations to cardholders
- Interface for importing personnel data from a HR system or exporting such information from ACE to such a system, either manually or by batch schedule.
- Card personalization for importing cardholder images and creating customized corporate badge designs printable on standard card printers
- A routing feature to ensure that personnel follow prescribed routes within the premises
- Remote door unlock feature e.g. by mouse click on an icon in a BIS interactive location map.
- Creation of logical areas, e.g. single rooms, groups of rooms, whole floors or parking lots, to which special access control points can be assigned.
- The ability to limit the number of people or cars accessing a logical area
- Full archive and restore capability for system data
- Powerful client/server architecture based on the BIS web-server
- The ability to customize software administrator rights, if needed on a dialog-by-dialog basis
- Flexible alarm management for a huge range of alarm conditions (e.g. denied access, tamper-detection, badge blacklisted, duress alarm, etc.) optionally combinable with BIS features such as interactive location maps and action plans
- Utilization of the Bosch controller family's digital, monitored I/Os for additional control and monitoring functions, including intrusion- and tamper-detection
- Easy integration with Bosch or 3rd party video systems such as matrix switches, DVRs, IP-cameras etc.
- Detailed logging of access events and alarms
  - Audit trail for changes to master records and authorizations, including creation, modification and deletion of records
  - Integrated reporting with filtering capability
  - Export to standard CSV-format for further processing
- Support for up to four different Wiegand card formats simultaneously
- Comprehensive online help
- Mass data change for authorizations and other data

Accessories for BIS Access Engine

Video verification
Video verification extends the security level of your access control system through video technology. When a reader is in video verification mode the cardholder is not admitted directly. Instead the reader performs a request for entrance which appears as a message on the operator's screen.
An Action Plan (see BIS optional accessories) shows the operator the cardholder's image as stored in the ACE database in conjunction with a live image from a camera near the entrance/reader that sent the request. The operator compares both images and decides whether or not to open the door.

Parking lot management



This feature allows the definition and use of the door model "parking lot" which contains the control of two barriers for entrance and exit and their traffic lights, which prevent access when the lot has reached maximum capacity.
Each parking lot can be divided into logical areas, with a maximum number of cars defined for each. Authorization to pass the barrier and park in a logical area can be assigned to cardholders in the standard dialogs. Load-balancing of the parking lots is also possible, with current capacity information displayed on the operator's screen. Load balancing of cars (parking lots) and persons (access areas) is handled separately, so that it is possible to track the location of both cardholder and car simultaneously.

Increasing access control capacity
Licenses to increase the number of entrances are available in steps of 32. An entrance in this sense is equivalent to an ACE door model, making it easy to calculate requirements.
Example: Your site has 2 main entrances with an entry and an exit reader each, 26 office doors with entrance reader and 1 mantrap for the computer center. The total number of door models/entrances is 29, irrespective of the number of readers involved. A total of 29 entrances is already covered by the ACE basic package license.

Installation/configuration notes

Access Engine in figures

Max. number of active cards	400.000
Max. number of readers	9600 (with 10 Master Access Controllers)
Max. number of MACs (Master Access Controllers)	10
Max. number of access authorizations	1000 per MAC

Parts included

BIS Access Engine Basic Package Extended includes these licenses:

- License for 1000 cards
- License for 32 entrances
- Access area balancing
- N-persons authorization
- Mantrap
- Guard tour
- Random screening
- Visitor management
- Interface IDS arm/disarm
- Elevator interface
- Import/Export interface
- Routing
- Remote door unlock
- Card personalization
- Default startup configuration for access control
- Video verification
- Parking lot management

Ordering Information

Access Engine can be ordered in one of two ways:

- as an integral part of an initial BIS configuration, in which case it is ordered along with a BIS basic package, and delivered with BIS
- as an enhancement to an existing BIS configuration

Ordering information

ACE 4.1 Basic License
Basic license for the BIS module specified
Order number **BIS-FACE-BPA41**

ACE 4.1 additional 100 ID Cards
License for the addition to BIS of the feature specified
Order number **BIS-XACE-100C41**

ACE 4.1 additional 1000 ID Cards
License for the addition to BIS of the feature specified
Order number **BIS-XACE-1KC41**

ACE 4.1 additional 32 Doors
License for the addition to BIS of the feature specified
Order number **BIS-XACE-32DR41**

ACE 4.1 additional 1 MAC
License for the addition to BIS of the feature specified
Order number **BIS-XACE-1MAC41**

ACE 4.1 1 Deister Key Cabinet
Not valid for all sales regions. If in doubt, consult your Bosch representative.
License for the addition to BIS of the feature specified
Order number **BIS-XACE-1KEY41**

ACE 4.1 Extended Parking Management
License for the addition to BIS of the feature specified
Order number **BIS-FACE-PRK41**

ACE 4.1 Application Programming Interface (API)
License for the addition to BIS of the feature specified
Order number **BIS-FACE-API41**

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